

IN THE CLAIMS

Please cancel claims 70-123 and 143-148 without prejudice or disclaimer as follows:

1-69. (CANCELED).

70-123. (CANCELED).

124. (PREVIOUSLY PRESENTED) A flowmeter, comprising:
a flow rate measurement section through which fluid to be measured flows;
a pair of ultrasonic wave transducers provided in the flow rate measurement section for transmitting/receiving an ultrasonic wave;
a driver circuit for driving one of the ultrasonic wave transducers;
a reception detecting circuit connected to the other one of the ultrasonic wave transducers for detecting an ultrasonic wave pulse;
a timer for measuring a propagation time based on a receipt detection timing of the ultrasonic wave pulse;
a control section for controlling the driver circuit;
a calculation section for calculating a flow rate of the fluid to be measured based on an output from the timer; and
periodicity change means for sequentially changing a driving method of the driver circuit,
wherein the control section controls the periodicity change means such that the frequency of transmission/reception signal in flow rate measurement based on the propagation time of the ultrasonic wave pulse is sequentially changed.

125. (PREVIOUSLY PRESENTED) A flowmeter, comprising:
a flow rate measurement section through which fluid to be measured flows;

a pair of ultrasonic wave transducers provided in the flow rate measurement section for transmitting/receiving an ultrasonic wave;
a driver circuit for driving one of the ultrasonic wave transducers;
a reception detecting circuit connected to the other one of the ultrasonic wave transducers for detecting an ultrasonic wave pulse;
a control section for controlling the driver circuit for a predetermined number of times so as to drive the one of the ultrasonic wave transducers again based on an output from the reception detecting circuit;
a timer for measuring an elapsed time for the predetermined number of times;
a calculation section for calculating a flow rate of the fluid to be measured based on an output from the timer; and
periodicity change means for sequentially changing a driving method of the driver circuit,
wherein, the control section changes the driving method with the periodicity change means every time a receipt of the ultrasonic wave pulse is detected by the reception detecting circuit.

126. (PREVIOUSLY PRESENTED) A flowmeter according to claim 124, wherein:

the periodicity change means switchingly outputs a plurality of output signals having different frequencies; and
the control section changes a driving frequency of the driver circuit by changing a frequency setting of the periodicity change means at every flow rate measurement.

127. (PREVIOUSLY PRESENTED) A flowmeter according to claim 125, wherein:

the periodicity change means switchingly outputs a plurality of output signals having different frequencies; and

the control section changes a driving frequency of the driver circuit by changing a frequency setting of the periodicity change means at every flow rate measurement.

128. (PREVIOUSLY PRESENTED) A flowmeter according to claim 124, wherein:

the periodicity change means outputs output signals having the same frequency and a plurality of different phases; and

the control section changes a driving phase of the driver circuit by changing a phase setting of an output signal of the periodicity change means at every flow rate measurement.

129. (PREVIOUSLY PRESENTED) A flowmeter according to claim 125, wherein:

the periodicity change means outputs output signals having the same frequency and a plurality of different phases; and

the control section changes a driving phase of the driver circuit by changing a phase setting of an output signal of the periodicity change means at every flow rate measurement.

130. (PREVIOUSLY PRESENTED) A flowmeter according to claim 124, wherein:

the periodicity change means outputs a synthesized signal obtained by superposing a signal of a first frequency which is an operation frequency of the ultrasonic wave transducers and a signal of a second frequency which is different from the first frequency; and

the control section outputs, through the driver circuit, at every flow rate measurement, an output signal where the second frequency of the periodicity change means is changed.

131. (PREVIOUSLY PRESENTED) A flowmeter according to claim 125, wherein:

the periodicity change means outputs a synthesized signal obtained by superposing a signal of a first frequency which is an operation frequency of the ultrasonic wave transducers and a signal of a second frequency which is different from the first frequency; and

the control section outputs, through the driver circuit, at every flow rate measurement, an output signal where the second frequency of the periodicity change means is changed.

132. (PREVIOUSLY PRESENTED) A flowmeter according to claim 130, wherein the periodicity change means changes the setting between a case where there is a second frequency and a case where there is not a second frequency.

133. (PREVIOUSLY PRESENTED) A flowmeter according to claim 130, wherein the periodicity change means changes the phase setting of the second frequency.

134. (PREVIOUSLY PRESENTED) A flowmeter according to claim 130, wherein the periodicity change means changes the frequency setting of the second frequency.

135. (PREVIOUSLY PRESENTED) A flowmeter according to claim 125, wherein:

the periodicity change means includes a delay section in which different delay times can be set; and

the control section changes a delay time set in the delay section every time transmission or reception of an ultrasonic wave is detected.

136. (PREVIOUSLY PRESENTED) A flowmeter according to claim 124, wherein the width of a cycle of the frequency changed by the periodicity change means

is a multiple of a value corresponding to a propagation time variation which is caused by a measurement error.

137. (PREVIOUSLY PRESENTED) A flowmeter according to claim 125, wherein the width of a cycle of the frequency changed by the periodicity change means is a multiple of a value corresponding to a propagation time variation which is caused by a measurement error.

138. (PREVIOUSLY PRESENTED) A flowmeter according to claim 124, wherein a width of a cycle of the frequency changed by the periodicity change means is equal to a cycle of a resonance frequency of the ultrasonic wave transducers.

139. (PREVIOUSLY PRESENTED) A flowmeter according to claim 125, wherein a width of a cycle of the frequency changed by the periodicity change means is equal to a cycle of a resonance frequency of the ultrasonic wave transducers.

140. (PREVIOUSLY PRESENTED) A flowmeter according to claim 124, wherein the order of patterns for changing the periodicity is the same for both measurement in an upstream direction and measurement in a downstream direction.

141. (PREVIOUSLY PRESENTED) A flowmeter according to claim 125, wherein the order of patterns for changing the periodicity is the same for both measurement in an upstream direction and measurement in a downstream direction.

142. (PREVIOUSLY PRESENTED) A flowmeter according to claim 125, wherein the predetermined number of times is a multiple of a change number of the periodicity change means.

143-148. (CANCELED).